DETAILED ACTION

Response to Amendment/Arguments

1. Applicant's arguments filed July 19, 2010 have been fully considered and are persuasive, and the after-final amendments filed July 19, 2010 have been entered. Applicant argued that the Walter et al. reference is not available as prior art in the present application because the PCT publication was not in English. The Examiner agrees. Applicant additionally submitted a certified English translation of the foreign priority document in the present application in order to antedate WO 03/016073, the earlier PCT publication of the Walter et al. reference. Therefore, the Examiner has withdrawn the 35 USC 103(a) rejections over Walter et al. Applicant incorporated the subject matter of claims 15 and 19 (which were rejected in view of the Walter et al. reference) into independent claims 1 and 2, respectively. However, upon further consideration of the primary reference to Phillips et al., it is the Examiner's position that the newly-added limitations of claims 1 and 2 (former claims 15 and 19) are broad enough to read on the Phillips et al. reference, for reasons set forth in detail in section 3 below. Accordingly, this action is made non-final.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-2, 4, 6-7, 10, 13-14, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips et al. (US 2004/0101676).

With respect to independent claim 1, Phillips et al. discloses a method for the production of antifalsification identification elements comprising: applying a layer 22 reflecting electromagnetic waves and subsequently a dielectric spacer layer 20, which may be polymeric (paragraph [0067]), on a carrier substrate 64 (see Figure 5 and paragraph [0080]); followed by applying an absorber layer 18 on the spacer/dielectric layer 20. Phillips et al. teaches that the absorber layer may be formed of metals mixed in a dielectric matrix (paragraph [0064]), which would form metallic clusters. The metallic clusters layer is produced by vacuum technology (paragraph [0085]). Subsequently, second carrier substrate 12 is applied thereon by lamination. It is the Examiner's position that this process meets the newly-added limitations of claim 1 of "applying the layer formed of metallic clusters onto a second carrier substrate" because, by subsequently laminating the optical coating 16 on first carrier sheet 64 onto the second carrier substrate 12, the metallic clusters are applied onto the second carrier substrate 12. The resulting product, as shown in Figure 5, includes a first carrier substrate 64 and the second carrier substrate 12 connected so as to form the antifalsification identification element after said applying the layer which reflects electromagnetic waves and said applying polymeric layer, and after said applying the layer formed of metallic clusters, as claimed..

With respect to independent claim 2, Phillips et al. discloses a method for the production of antifalsification identification elements comprising a reversed order of deposition (paragraph [0084]): applying an absorber layer 18 containing metallic clusters

and subsequently a dielectric spacer layer 20, which may be polymeric (paragraph [0067]), on a carrier substrate 12; followed by applying a layer 22 reflecting electromagnetic waves on the spacer/dielectric layer 20. It would have been obvious to have used this reverse order of deposition in the production of an element as discussed above with respect to Figure 5, where there is a first carrier substrate 64 on bottom and a second, subsequently applied carrier substrate 12 on top, in order to view the interference pattern by viewing the security article through the light transmissive substrate 12 as discussed in paragraph [0084].

With respect to the limitation in both claims 1 and 2 of modifying the spacer layer by a process selected from a group consisting of a PVD process, a CVD process, and treatment with oxidizing fluids, Phillips et al. teaches in paragraph [0082] that its optical coating may include a shear-sensitive interlayer 78 of vapor-deposited material that is applied on the dielectric layer 20 (which corresponds to the claims' spacer layer). The Examiner notes that it is well known in the coating art that PVD and CVD are two well known and most common means for "vapor depositing" a coating. It would have been obvious to one having ordinary skill in the art to have applied the shear interlayer 78 in the optical coating of Phillips et al. by either a CVD or PVD process since they are well known and commonly used means for vapor deposition. Application of interlayer 78 on the dielectric/spacer layer 20 by either a PVD or CVD process reads on the claimed step of modifying the spacer layer by a PVD or CVD process. Further, paragraph [0083] states that the shear interlayer can be utilized in the other embodiments that utilize an optical coating comprising a multilayer foil, which would include the process/structure of claim 2.

As to claim 4, the second carrier substrate/film 12 of Figures 5 and 10B would act as a protective layer on top of the metallic clusters layer

As to claim 6, Phillips et al. teaches "structuring" of its polymeric dielectric layer through laser ablation and/or laser scribing (paragraphs [0090]-[0094]). Applicant's own specification discloses at page 5, first full paragraph, that laser modification is a known means for effecting structuring or decrosslinking of its spacer layer. As to claim 7, Phillips et al. lacks a teaching of converting the layer(s) into unique codes by means of fingerprint algorithms. However Phillips et al. teaches the desire to form unique features including bar codes, pictures of faces or people, etc. (paragraph [0091]). It would have similarly been obvious for one having ordinary skill in the art to have used fingerprint algorithms to form unique codes, as a matter of design preference, with the expectation of successful results, since the reference similarly teaches the formation of unique codes.

As to claim 10, Phillips et al. teaches that the metallic cluster layer is applied by vacuum processing (paragraph [0085]) which is inclusive of vapor deposition.

4. Claims 8, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips et al. as applied to claim 1 above, and further in view of Kraus et al. (US 2002/0123235).

Phillips et al. teaches the desire to form various images in its optical coating. As an alternative to laser ablation or scribing, Phillips et al. teaches use of etching as means to form the images (paragraph 91). The Examiner notes that the claimed chemical sodium hypochlorite is a known etchant. The prior art of Kraus et al. is cited merely for its teaching that hypochlorite salts are known etchants, including sodium hypochlorite

(paragraphs 13-14). It is the Examiner's position that it would have been obvious to one having ordinary skill in the art to have used any known etchant, including sodium hypochlorite, to etch various images in its optical coatings (including the spacer layer) with the expectation of successful results since Phillips et al. is not limited to particular materials to be used and since sodium hypochlorite is a known etchant material. As to new claims 14 and 18, it is noted that contact with an etchant such as sodium hypochlorite meets the broad limitation of "modifying the spacer layer by … treatment with oxidizing fluid" since sodium hypochlorite is an oxidizing fluid.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips et al. as applied to claim 1 above, and further in view of Winnik et al. (US 5,286,286).

Phillips et al. discusses the inclusion of color shifting ink in its optical coating (paragraph 90) as means for increasing the security. Winnik et al. is cited for its teaching of a color-shifting ink composition useful in providing security to documents, which includes the use of chromophore dyes (col. 8, line 50 through col. 9). Winnik et al. teaches inks that are substantially colorless and detectable when exposed to radiation outside the visible wavelength range, and which are useful in processes wherein it is desired to place invisible markings on documents such as providing security markings. One having ordinary skill in the art would have recognized, upon seeing the teachings of Phillips et al. and Winnik et al. in combination, that the chromophore-based inks of Winnik et al. would have added an increased level of security to the optical coatings/structure of Phillips et al. The test of obviousness is not express suggestion of the claimed invention in any or all references but rather what the references taken

collectively would suggest to those of ordinary skill in the art presumed to be familiar with them. *In re Rosselet*, 347 F.2d 847, 146 USPQ 183 (CCPA 1965); *In re Hedges*, 783 F.2d 1038.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten C. Jolley whose telephone number is 571-272-1421. The examiner can normally be reached on Monday to Tuesday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kirsten C Jolley/
Primary Examiner, Art Unit 1715

kcj